

Anekant Education Society's

**Tuljaram Chaturchand College of Arts, Science and Commerce,
Baramati
(Autonomous)**

MoU Activity Report

Department of **Zoology** Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati (Autonomous) in collaboration with **Paul Hebert Centre for DNA Barcoding & Biodiversity Studies, Dr. BAMU, Aurangabad.**

Details of Activity

Date of Activity: **29 Jan-31 Jan 2023**

Title of Activity: **DNA Barcoding: Hands-on Training Module**


Academic Year.**2022-23**

Number of Beneficiaries/Participants:**23**

Name of Collaborative Agency: **Paul Hebert Centre for DNA Barcoding & Biodiversity Studies, Dr. BAMU, Aurangabad**

(.....)
Authorised signatory on behalf of
Paul Hebert Centre for DNA of
barcoding & Biodiversity Studies,
Dr. Babasaheb Ambedkar
Marathwada University,
Aurangabad.




Dr. Chandrashekhar Murumkar
Principal

***Enclosure:** Activity Report

Anekant Education Society's
Tuljaram Chaturchand College
of Arts, Science & Commerce, Baramati.
Autonomous
P.G. Department of Zoology

06/02/2023

To,
The Principal,
Tuljaram Chaturchand College of Arts, Science & Commerce,
Baramati.

Sub: Report of Training on DNA Barcoding organised under MoU between Department of Zoology & Paul Hebert Centre for DNA Barcoding & Biodiversity Studies, Dr. BAMU, Aurangabad.

Respected Sir,

With your prior permission, Department of Zoology had organised three days training programme (workshop) on DNA Barcoding: 29th to 31st January 2023; under the MoU with Paul Hebert Centre for DNA Barcoding & Biodiversity Studies, Dr. BAMU, Aurangabad. This training programme was the second activity held under the MoU between our college & the abovementioned institute. It was organised to commemorate the Azadi Ka Amrit Mahotsav and Diamond Jubilee of our Anekant Education Society. This workshop was coordinated by Dr. Deepali Sangale as per discussion with Dr. G. D. Khedkar of BAMU, Aurangabad. Total 23 students and 03 faculty members had participated in this training programme.

On 29th January 2023 at 12:00 pm to 2:00 the first session was conducted by Dr. Gulab D. Khedkar in which he explained basics of DNA barcoding & he enlightened the participants about the importance of DNA barcoding.

The lab orientation was conducted by Dr. Anita Tiknaik to acquaint the participants with lab Instrumentation and the advanced facilities of DNA Barcoding and NGS system.

The next practical session was about sample collection & DNA Isolation. It was conducted by Mr. Nitin Kalyankar and Mr. Shankar Mutkule.

On 30th January, the second practical session was about DNA Purification & quantification. It was conducted by Mr. Nitin Kalyankar and Shankar Mutkule in two batches of 12 students each. In this session, they explained the purification process to avoid DNA contamination and principle of nano-spectrophotometer to quantify purified DNA.

Noted
12/01/23
[Signature]



(.....)
Authorised signatory on behalf of
Paul Hebert Centre for DNA of
barcoding & Biodiversity Studies,
Dr. Babasaheb Ambedkar
Marathwada University,
Aurangabad.

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Tuljaram Chaturchand College
of Arts, Science & Commerce, Baramati.
Autonomous
P.G. Department of Zoology

The practical session-III was on PCR, conducted by Dr. Anita Tiknaik and Dr. Rajashri Deolalikar in two batches of 12 students each. They explained the principle of DNA

amplification on PCR and all students had been given hands-on experience to perform PCR reaction. The practical session-IV was on gel electrophoresis and it was conducted by Mr. Nitin Kalyankar in which he explained about principle of gel electrophoresis and allowed students to run the samples on gel.

On 31st January the practical session -V was on Demonstration on Sanger Sequencing conducted by Dr. Anita Tiknaik in small group of 12 students each .In which she explain how the sequence of nucleotide is determined by sanger sequencing mentod and she also demonstrate how to determine the sequence quality with help of electrophorogram.

The practical session-VI on data analysis with Codon code, MEGA-5 and BOLD Database; was conducted by Dr. Anita Tiknaik and Mr. Amol Kalnyankar in two batches of 12 students each. In this session, participants were acquainted about the sequence editing, sequence alignment, and assembly with codon code aligner. Experts also demonstrated the technique of building phylogenetic tree on MEGA-5 software to understand the evolutionary relation between species for species identification. Besides, students were also trained about the technique of DATA submission on BOLD database.

The last session was about introduction to Next Generation Sequencing (NGS) technology that was conducted by Dr. Anita Tiknaik. Practical session was finished at 14:30PM.

After the completion of workshop, students were taken to the Zoological park of Aurangabad Municipal Corporation.

I am thankful to you and the RUSA coordinator for granting us the permission and providing the financial assistance under RUSA for this activity.

(.....)
Authorised signatory on behalf of
Paul Hebert Centre for DNA of
barcoding & Biodiversity Studies,
Dr. Babasaheb Ambedkar
Marathwada University,
Aurangabad.




Head,
Department of Zoology

Anekant Education Society's
Tuljaram Chaturchand College
of Arts, Science & Commerce, Baramati.
Autonomous
Department of Zoology

Date: 06/01/2023

To,
The Principal,
Tuljaram Chaturchand College of Arts, Science & Commerce,
Baramati.

Sub: Details of expenses incurred for Hands on training / Workshop on DNA Barcoding

Respected Sir,

With your prior permission, department of Zoology had conducted a three day's workshop as a part of MoU with Paul Habert Centre for DNA Barcoding & Biodiversity Studies, Dr. BAMU, Aurangabad.

Following are details of expenses incurred for the same.

Sr. No:	Particulars	Amount
1.	Travelling charges of Bus: Baramati-Aurangabad-Baramati 900KM @ 38.89/- per KM (KM included local visited sites)	35,000/-
2.	First Aid Box & Medicines	186.60 98/- 68/- Total = 352.60
3.	Local Hospitality And Boarding 1) Guest House, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad	5200/-
	2) Breakfast, Lunch and Evening Dinner of 29/01/2023	1770/- 6765/- Total = 8535/-
	3) Breakfast, Lunch and Evening Dinner of 30/01/2023	890/- 248/- 2630/- 3670/- Total = 7438/-
	4) Breakfast, Lunch and Evening Dinner of 31/01/2023	1010/- 1940/- 3690/- Total = 6640/-

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(.....)
Authorised signatory on behalf of
Paul Hebert Centre for DNA of
barcoding & Biodiversity Studies,
Dr. Babasaheb Ambedkar
Marathwada University,
Aurangabad.

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Department of Zoology


4.	Local visits:	
	1) Siddharth Garden, Aurangabad	520/-
	2) Bibi ka Makbara	675/-
	3) Parking Charges at various locally visited places	80/- 100/- 100/- 60/- 90/- Total= 430/-
5.	Cantonment Board Entry Fees	150/- 150/- 150/- Total= 450/-
Total		65,240.60

Sr. No.	Particulars	Total Amount	To be paid to
2	Mr. Mayur Sharad Shitole	65240.00	Mr. Mayur Sharad Shitole Bank of Maharashtra A/C No: 25029866733 IFSC code: MAHB0000073
Total		65240/- (Rs. Sixty five thousand two hundred forty only)	

I request you to sanction the amount as per given details.


Thanking you,

Yours' Sincerely


Coordinator



(.....)
Authorised signatory on behalf of
Paul Hebert Centre for DNA of
barcoding & Biodiversity Studies,
Dr. Babasaheb Ambedkar
Marathwada University,
Aurangabad.


Head, Dept of Zoology

Anekant Education Society's
Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati Dist.Pune
(Autonomous)
In Collaboration With
THREE DAYS TRAINING PROGRAMME
ON DNA BARCODING
Under the MoU with
Paul Hebert Centre for DNA Barcoding and Biodiversity Studies, Aurangabad

Schedule of the Training programme

Date: 29th -31st Jan 2023

TIME	SESSION TYPE	TOPIC	RESOURCE PERSON	VENUE
Day One: 29 January 2023				
12:00-13:00 PM	Session-I Introduction	The basics of DNA barcoding & the importance of DNA barcoding	Dr. G. D Khedkar	Paul Hebert centre for DNA Barcoding
13:00 – 14:00 PM	Lab orientation	Acquaintance with lab Instrumentation and advance facilities	Dr. Anita Tiknaik Amol Kalyankar	Paul Hebert centre for DNA Barcoding
14:00 – 15:00 Lunch-Break				
15:00 – 18:00	Practical session-I	Sample collection and DNA Isolation for animal tissue: Fish-	Nitin Kalyankar (Batch of 11 Students)	Paul Hebert centre for DNA Barcoding
		Sample collection and DNA Isolation for animal tissue: Fish-	Mr. Shankar Mutkule (Batch of 12 Students)	
Day two: 30th January 2023				
10:30 – 11:30 PM	Practical session-II	Ethanol wash and DNA Purification	Mr. Shankar Mutkule (Batch of 12 Students) And Nitin Kalyankar (Batch of 11 Students)	Paul Hebert centre for DNA Barcoding
11:30 – 13:00 PM		DNA Quantification by Nanodrop spectrophotometer	Mr. Amol Kalyankar (Batch of 12 Students)	Paul Hebert centre for DNA Barcoding
		DNA Quantification	Dr. Rajeshri Deolalikar	



		by Nanodrop spectrophotometer	(Batch of 11 Students)	
Lunch Break				
13:00-14:00				
14:00 – 15:00 PM	Practical session-III	PCR techniques	Dr. Anita Tiknaik (Batch of 12 Students)	Paul Hebert centre for DNA Barcoding
			Dr. Dr. Rajeshri Deolalikar (Batch of 11 Students)	
15:00 – 16:30	Practical session-IV	Gel electrophoresis	Mr. Nitin Kalyankar	Paul Hebert centre for DNA Barcoding
Day Three: 31 January 2023				
10:00-11:00AM	Practical session-V	Demonstration on Sanger Sequencing	Mr. Amol Kalyankar All students	Paul Hebert centre for DNA Barcoding
11:00-13:00 noon	Practical session-VI	Demonstration on Codon code, MEGA-5 And BOLD Database	Dr. Anita Tiknaik All students	Paul Hebert centre for DNA Barcoding
13:00-14:30 PM	Theory & Practical session-VI	Introduction to NGS Next generation Sequencing	Dr. Anita Tiknaik All students	Paul Hebert centre for DNA Barcoding
14:30-15:00 PM	Lunch break			
15:00-15:30 PM	Valedictory function			



Dr. Deepali Sangale
Coordinator
Dr. Deepali Sangale

[Signature]
(.....)
Authorised signatory on behalf of
Paul Hebert Centre for DNA of
barcoding & Biodiversity Studies,
Dr. Babasaheb Ambedkar
Marathwada University,
Aurangabad.

[Signature]
Head,
Department of Zoology



**Anekant Education Society's
Tuljaram Chaturchand College of Arts, Science & Commerce, Baramati (AUTONOMOUS)
Department of Zoology**

Under the MoU with

**Paul Hebert Centre For DNA Barcoding and Biodiversity Studies, Dr. Babasaheb Ambedkar
Marathwada University, Aurangabad**

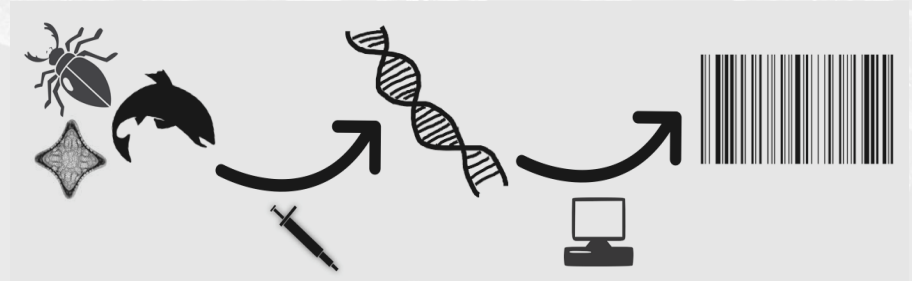
“Three Days hands-on training in DNA Barcoding”

Date: 29-01-2023 to 31-01-2023

**Place: Paul Hebert Centre For DNA Barcoding and Biodiversity Studies, Dr. Babasaheb Ambedkar
Marathwada University, Aurangabad**

Training will be included:

- 1) Hands on- Isolation of DNA.
- 2) Hands on- Nanodrop analysis.
- 3) Hands on- Gel electrophoresis.
- 4) Hands on- Geldoc analysis.
- 5) Hands on- PCR
- 6) Introduction and demonstration of Sanger's Sequencing.
- 7) Introduction and demonstration of NGS.





Latitude: 19.904726
Longitude: 75.308791
Elevation: 588.47±23 m
Accuracy: 110.0 m
Time: 29-01-2023 16:14
Note: Hands on Training of DNA Barcoding_Department of Zoology_MSc-II

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Latitude: 19.904703
Longitude: 75.308839
Elevation: 588.47±3 m
Accuracy: 21.5 m
Time: 30-01-2023 12:53
Note: Hands on Training of DNA Barcoding_Department of Zoology_MSc-II

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Latitude: 19.904727
 Longitude: 75.308795
 Elevation: 588.47±5 m
 Accuracy: 32.1 m
 Time: 30-01-2023 12:54

Note: Hands on Training of DNA Barcoding_Department of Zoology_MSc-II

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Latitude: 19.877813
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 Elevation: 554.69±36 m
 Accuracy: 13.5 m
 Time: 31-01-2023 11:54

Note: Hands on Training of DNA Barcoding_Department of Zoology_MSc-II

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Latitude: 19.904729
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Elevation: 586.67±17 m
Accuracy: 31.3 m
Time: 29-01-2023 12:56

Note: Hands on Training of DNA Barcoding, Department of Zoology_MSc-II

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Latitude: 19.903719
Longitude: 75.310788
Elevation: 588.47±23 m
Accuracy: 1300.0 m
Time: 29-01-2023 16:14

Note: Hands on Training of DNA Barcoding, Department of Zoology_MSc-II

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